

PLANNING DEPARTMENT

City and County of San Francisco 1660 Mission Street San Francisco, CA 94103-2414

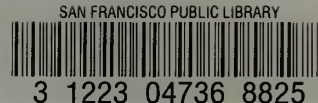
(415) 558-6378

PLANNING COMMISSION
FAX: 558-6409

ADMINISTRATION
FAX: 558-6426

CURRENT PLANNING/ZONING
FAX: 558-6409

LONG RANGE PLANNING
FAX: 558-6426



DOCUMENTS DEPT.

JUL 07 1998

SAN FRANCISCO
PUBLIC LIBRARY

Mayor Mark Church
City of Millbrae
11 Magnolia Avenue
Millbrae, California 94030

SFIA Station MA Electrical Substation Negative Declaration

22 June 1998

Dear Mayor Church:

As you know, the San Francisco Planning Department issued a Preliminary Negative Declaration (PND) for the proposed San Francisco International Airport (SFIA) Station MA project on March 28, 1998. The Planning Department received two comment letters on the PND, both from the City of Millbrae (L.M. Sandrini, March 30, 1998 and Mayor Church, May 13, 1998). This letter, coupled with the attached Final Negative Declaration, responds to the City of Millbrae's comments and concerns.

Regarding Pacific Gas & Electric's (PG&E) need for access to the Station MA site, the revised site plan shows that Station MA and the new PG&E access road would share an access driveway at Santa Paula Avenue and Bay Street.

The revised Station MA plans call for a ten-foot high wall around the perimeter of the site. The wall and the gate would substantially, but not entirely, screen the transformers, as shown in Figure 6. (Note: the revised site plan indicates that the location of the transformer and height of the wall would be as indicated in the original site plan. The gate would be 18 feet wide instead of 16 feet.) We assumed an eight-foot high fence for Figure 6 in the Preliminary Negative Declaration; no height was specified for the gate on the site plans. Increasing the height of the gate to ten feet would further reduce this visual impact.

Although such landscaping details are not typically available at this phase of the proposed project, the project proponent would develop such landscaping plans during the construction design phase. Furthermore, SFIA has agreed to work with Millbrae City staff to develop an appropriate design for the perimeter walls facing Santa Paula Avenue. The landscaping design will also include appropriate landscaping materials to screen the concrete wall.

The City of Millbrae also expressed concerns about parking for construction workers and construction noise. PG&E stated at the April 15 neighborhood meeting that no more than about four to eight construction workers would be on-site at any one time during the construction period. The initial site preparation work to build the perimeter wall, lay the ground system grid, prepare the foundation and erect the takedown poles would be the most labor-intensive work, and would be completed within the first two months or so. Once this initial work is completed, PG&E anticipates that only up to two or four workers would be on the site at any one time. However, SFIA has committed to having a construction parking plan prepared for review and comment by the Director of Public Works, City of Millbrae before the commencement of construction.

D

REF
387.7362
N31 f



PLANNING DEPARTMENT

City and County of San Francisco

1660 Mission Street

San Francisco, CA 94103-2414

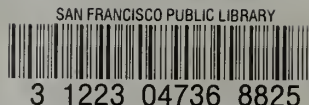
(415) 558-6378

PLANNING COMMISSION
FAX: 558-6409

ADMINISTRATION
FAX: 558-6426

CURRENT PLANNING/ZONING
FAX: 558-6409

LONG RANGE PLANNING
FAX: 558-6426



DOCUMENTS DEPT.

JUL 07 1998

SAN FRANCISCO
PUBLIC LIBRARY

Mayor Mark Church
City of Millbrae
621 Magnolia Avenue
Millbrae, California 94030

re: SFIA Station MA Electrical Substation Negative Declaration

22 June 1998

Dear Mayor Church:

As you know, the San Francisco Planning Department issued a Preliminary Negative Declaration (PND) for the proposed San Francisco International Airport (SFIA) Station MA project on March 28, 1998. The Planning Department received two comment letters on the PND, both from the City of Millbrae (L.M. Sandrini, March 30, 1998 and Mayor Church, May 13, 1998). This letter, coupled with the attached Final Negative Declaration, responds to the City of Millbrae's comments and concerns.

Regarding Pacific Gas & Electric's (PG&E) need for access to the Station MA site, the revised site plan shows that Station MA and the new PG&E access road would share an access driveway at Santa Paula Avenue and Bay Street.

The revised Station MA plans call for a ten-foot high wall around the perimeter of the site. The wall and the gate would substantially, but not entirely, screen the transformers, as shown in Figure 6. (Note: the revised site plan indicates that the location of the transformer and height of the wall would be as indicated in the original site plan. The gate would be 18 feet wide instead of 16 feet.) We assumed an eight-foot high fence for Figure 6 in the Preliminary Negative Declaration; no height was specified for the gate on the site plans. Increasing the height of the gate to ten feet would further reduce this visual impact.

Although such landscaping details are not typically available at this phase of the proposed project, the project proponent would develop such landscaping plans during the construction design phase. Furthermore, SFIA has agreed to work with Millbrae City staff to develop an appropriate design for the perimeter walls facing Santa Paula Avenue. The landscaping design will also include appropriate landscaping materials to screen the concrete wall.

The City of Millbrae also expressed concerns about parking for construction workers and construction noise. PG&E stated at the April 15 neighborhood meeting that no more than about four to eight construction workers would be on-site at any one time during the construction period. The initial site preparation work to build the perimeter wall, lay the ground system grid, prepare the foundation and erect the takedown poles would be the most labor-intensive work, and would be completed within the first two months or so. Once this initial work is completed, PG&E anticipates that only up to two or four workers would be on the site at any one time. However, SFIA has committed to having a construction parking plan prepared for review and comment by the Director of Public Works, City of Millbrae before the commencement of construction.

5/S



GOVERNMENT INFORMATION CENTER
SAN FRANCISCO PUBLIC LIBRARY
SAN FRANCISCO
PUBLIC LIBRARY

REFERENCE
BOOK

Not to be taken from the Library



Mayor Mark Church
City of Millbrae
June 22, 1998

The period of construction will be four months in duration. Given the short period of construction (necessitated in part by weather constraints), reducing the daily working hours could extend the project schedule and the period of disturbance to the neighborhood. Therefore, maintaining the 7:30 A.M. start time would limit the duration of the construction period and temporary noise impact on the neighborhood.

The City of Millbrae also expressed understandable concerns relating to electromagnetic fields and their possible effect on health and safety. The issue of alternative site locations is discussed on page 4 of the Preliminary Negative Declaration. Many constraints complicated the site selection process for the electrical transformer. From an engineering perspective, the proposed site should be as close as possible to the existing 115 kilovolt transmission lines and to Station M, but it could not be directly underneath the high voltage power lines. In addition, the proposed site had to be located outside the wetland areas and it must have all-weather access outside the 100-year floodplain and close to an existing access road. From an environmental perspective, the proposed site should be outside the habitat for the San Francisco Garter Snake, a California and federally listed species. Finally, the proposed site should minimize potential impacts to adjacent residents.

After careful scrutiny, SFIA proposed a site at the southeast corner of Bay Street and Santa Paula Avenue. This site is immediately adjacent to the PG&E transmission lines, close to Station M, has all weather access and is outside the 100-year floodplain. Most of the site is already graded and paved and is, therefore, not considered good habitat for the San Francisco Garter Snake. Furthermore, this site was selected because it provides the best possible balance in meeting all the engineering, environmental and neighborhood considerations noted above.

Electromagnetic fields (EMFs) are discussed on pages 28-30 of the Negative Declaration. Although the EMF issue remains a controversial topic, EMFs do not have a conclusive demonstrable effect on human health. Therefore, regulatory authorities and public health experts have set no safety or health standards for EMF exposure. Even so, SFIA has incorporated a number of measures to reduce or minimize potential EMF exposure from the proposed project facilities. The most important measure is placing the underground lines connecting the new transformer at the proposed Station MA with the existing Station M. Underground transmission lines produce far less EMF than do overhead lines. In addition, the takedown structure and the transformer are located as far as physically possible within the construction area, away from the closest residences.

With respect to PG&E's offer to monitor EMF measurements before and after construction of the project, SFIA has indicated that they would be happy to work with the City of Millbrae staff and neighborhood residents. SFIA has committed to having a construction parking plan prepared for review and comment by the Director of Public Works, City of Millbrae before the beginning of construction. It is our understanding that Millbrae staff will provide a list of interested residents who would like PG&E to monitor the EMF levels in their homes, and that SFIA will provide the list to PG&E. PG&E will send technicians to the homes and assess the existing EMF levels in the homes, both before and after the proposed Station MA is in operation.

The trench work from Station MA to Station M, between Santa Paula Avenue and Spruce Street, is discussed on page 10 of the Preliminary Negative Declaration. The trench would be excavated to a depth of six feet, along the east side of Bay Street. As a project enhancement not necessarily linked to a significant project impact of the trench work described above, SFIA and Hetch Hetchy Water and Power have agreed that prior to completion of construction, SFIA and Hetch Hetchy will resurface the entire length and cross-section of Bay Street between Paula Avenue and Madrone Street. This paving project may require further environmental review before construction.

In addition, SFIA will enhance landscaping on the Airport's West-of-Bayshore property parallel to the length of Bay Street between Santa Paula Avenue and Madrone Street. This is a separate proposal from the Station MA project

REF 387.7362 N31f

Negative declaration :
[final : SFIA station
1998.

~~3 1223 04736 4428~~

S.F. PUBLIC LIBRARY

Mayor Mark Church
City of Millbrae
June 22, 1998

and is subject to its own CEQA environmental documentation. Local residents and the City of Millbrae will be offered the opportunity to review and comment on the landscape buffer plans before construction of this separate project.

Finally, the third paragraph on page 12 of the Preliminary Negative Declaration citing the 1991 City of Millbrae General Plan was deleted in the Negative Declaration. This paragraph was replaced with the following text:

"Although a revised General Plan was prepared in 1991, it was never adopted. The City of Millbrae is currently undertaking a comprehensive update of the General Plan. Therefore, the 1974 General Plan is still currently in effect. Under the 1974 General Plan, the project site vicinity is designated as open space and as such, the City of Millbrae encourages landscaping to enhance the visual value of the area."

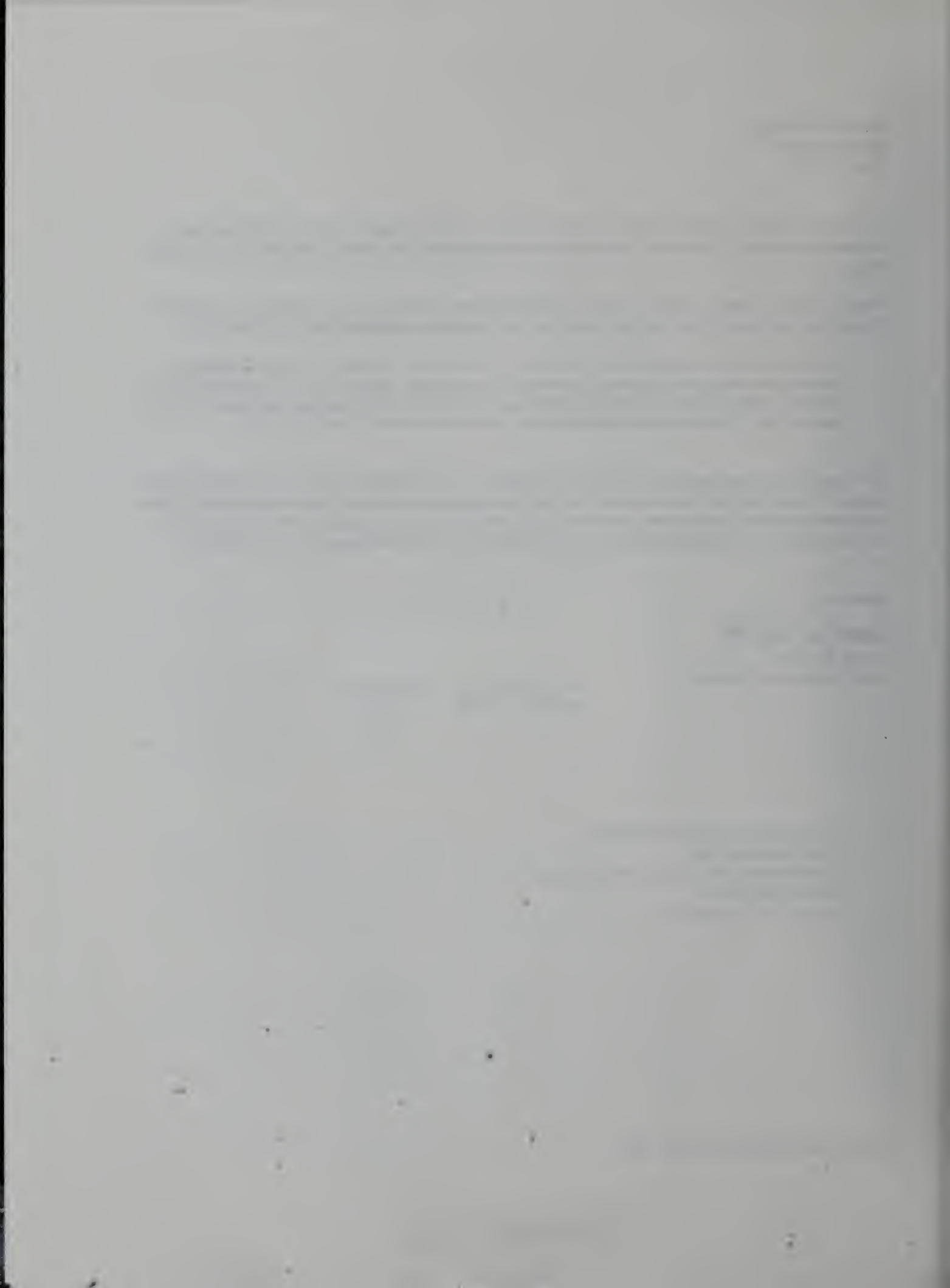
The Planning Department appreciates your input and assistance in the environmental review of this important SFIA project. It is important that we work together to ensure that the proposed Station MA project does not result in any unmitigated substantial environmental impacts and that it poses no threat to its neighbors. Please call me if you have any questions. My telephone number is (415) 558-6359, and my facsimile number is (415) 558-6426.

Sincerely,



Brian J. Kalahar
Major Environmental Analysis

cc: L.M. Sandrini, Millbrae Public Works
Lyn Calderdine, SFIA
Carole Ruwart, Hetch Hetchy Water & Power
Alain Billot, PG&E
Melba Yee, City Attorney





City of Millbrae

621 Magnolia Avenue, Millbrae, California 94030

March 30, 1998

Mr. Brian J. Kalahar, AICP
City & County of San Francisco
Planning Department
1660 Mission Street
San Francisco, CA 94103-2414

Subject: 97.061E SFIA Station MA
Electrical Substation
New Construction

Dear Mr. Kahahar:

Thank you for providing us the subject project Preliminary Negative Declaration. We will be reviewing it and look forward to the public meeting in Millbrae being planned by SFIA staff. This letter is to provide some initial preliminary comments and to request actions that would greatly assist in informing citizens who will be affected by the project and obtaining their acceptance.

In prior discussions with SFIA staff we indicated that resurfacing Bay Street for its entire length would be required if Bay Street is to be used for the underground transmission lines. You should plan on this and may want to add it to the documentation. We have provided some information concerning the resurfacing requirement to Carole Ruwart with Hetch Hetchy Water and Power.

The Figure 3 plot plan is not clear as to the actual footprint of the structures and walls that would be constructed. We would appreciate receiving a plan that is more specific in this regard. All dimensions and set backs for the street should be shown. We had expected only one access point to the City's streets. The plan shows a "New PG&E Access Road". We would like to see what is planned for the juncture of that road with the City street. Our preference is to not have another access from the street. We may have to discuss this.

The visual impact will be of concern. To ensure a proper perspective of the facility, we request you have the following accomplished:

1. Stake the corners of the substation and the gate entrance with stakes that are as tall as the wall will be. Stretch "tape" between the poles to show what would be the top of the wall as seen from Bay/Santa Paula Streets. If the gate is going to be shorter than the wall, "tape" its height also.

City Council/Administration
(650) 259-2334

City Clerk
(650) 259-2334

Public Works/Engineering
(650) 259-2339

Parks/Recreation
(650) 259-2360

Police Department
(650) 259-2300

Personnel
(650) 259-2334

Finance/Water
(650) 259-2350

Community Development
(650) 259-2341

Building Division
(650) 259-2330

Fire Department
(650) 259-2400

Journal of the American Medical Association

Vol. 100

June 1, 1955

Published weekly except on
Sundays, and on alternate
weeks in the month of
December

Subscription price, \$10.00
per annum in advance
Single copies, 25 cents

Entered as second-class

Postmaster: This publication
is published weekly except on
Sundays, and on alternate
weeks in the month of
December

Acceptance for mailing at
special rate of postage provided
for in Section 1103, Act of
October 3, 1917, authorized
on June 1, 1955

Postage paid at
Chicago, Ill., and at
additional mailing offices
Postage paid at
Chicago, Ill., and at
additional mailing offices

Subscription price, \$10.00
per annum in advance
Single copies, 25 cents

Published by the
American Medical Association

535 North Dearborn Street
Chicago 10, Ill.

Telephone: ME 5-2121

Mr. Brian J. Kahahar
City & County of San Francisco
March 30, 1998

Page 2

2. Place a stake in the vicinity of the transformers that is as tall as the transformer will be. Flag the top of the stake.
3. Place stakes where the take down structure poles will be. It may not be practical to extend them 35 feet tall, but they should be tall enough to see.
4. Mark the area where the access driveway will be. If you plan to discuss a PG&E driveway, mark it also.

It would be good to do the above before the public meeting. If you do these things, you might want to mention it on the notice that goes to the residents in that area. We have found that providing the kind of physical layout noted above goes a long way to avoiding unrealistic visions of what walls and view obstructions will look like. Please let me know if you will or will not do the above.

The 10 foot wall may not be high enough given the 18 foot transformers. If the gate is lower as shown on Figure 6, this could add to visual concerns. The "architecture" of the gate and walls will be of interest. It would be good to be able to show these kind of details at the public meeting. Likewise, you should be prepared to show the kind of landscaping that will be provided. Depending on the set back, landscaping at the roadside edge might be advised.

It would be good to have as many construction workers as possible park on the site versus on the streets. You should address how workers would be controlled to prevent lunch time or other gathering in the streets before, during or after work hours. Early morning street noise could become a problem. A construction start @ 8:00 am versus 7:30 am might be advised. This would get the workers in the area a little later.

The EMF question might come up. You have addressed it in the document, but there have been some recent reports that seems to dispute past conclusions. You may want to be prepared to address this.

We will be in touch with any other comments after we complete a review of the Preliminary Negative Declaration. In the meantime, you can reach me at (650) 259-2339 if there are any questions.

Sincerely,



L. M. Sandrini
Director of Public Works

c: Lyn Calerdine
Jim Erickson
Ralph Petty
files

LMS/rj

1900

1900

1900

1900

1900

1900

1900

1900

1900

1900

1900

1900

1900

1900

1900

1900



City of Millbrae

621 Magnolia Avenue, Millbrae, CA 94030

Phone (650) 259-2334 Fax (650) 259-2415

May 13, 1998

MARK CHURCH
Mayor

DORIS MORSE
Vice Mayor

DANIEL F. QUIGG
Councilman

DENIS E. RICHARDSON
Councilman

MARC HERZMAN
Councilman

Brian J. Kalahar
City and County of San Francisco
Planning Department
1660 Mission Street
San Francisco, CA 94103-2414

Faxed 5/13/98
794-5383

RE: Negative Declaration Comments
Project 97.051E - SFIA Station MA Electrical Substation

Dear Mr. Kalahar:

This letter provides the City of Millbrae's comments pursuant to the negative declaration dated March 28, 1998 for the subject project. We appreciate the deadline extension granted for these comments.

It is clear that project development so far has been sensitive to the impacts on the surrounding neighborhood. Thank you for the responsiveness of San Francisco staff to our requests for additional information, for hosting a neighborhood meeting, and for presenting the project before City Council. The positive responses to our past concerns have demonstrated your willingness to do all that is possible to address the City's needs. This letter summarizes and documents these needs and concerns.

Electromagnetic Fields (EMFs) and Safety Concerns

We appreciate your discussion on EMFs. There remains some uncertainty as to their effect on health and safety. Consequently, we ask that you move the location further away from the residential area. At the May 12, 1998 City Council meeting it was noted that before and after construction, PG&E could monitor EMFs. We would appreciate you taking this measure.

In the event of a disaster, we ask that you further define the potential for damage and consequences to the surrounding area.

Visual Impact and Landscaping

A ten-foot high cement block or concrete panel wall is described in your report but an architectural style has not been specified. The City would like to see that this wall and the corresponding gate be of an attractive architectural quality and not rely solely on the eventual coverage of vegetation for screening.



THE UNIVERSITY OF CHICAGO

OFFICE OF THE DEAN OF STUDENTS

1100 S. MICHIGAN AVE.
CHICAGO, ILL. 60607



ADMISSIONS
GRADUATE SCHOOL

CHICAGO, ILL. 60607

CHICAGO, ILL. 60607

CHICAGO, ILL. 60607

CHICAGO, ILL. 60607

CHICAGO, ILL. 60607

CHICAGO, ILL. 60607

SFLA staff has agreed to meet and confer with Millbrae staff regarding the design of the substation's perimeter wall. We look forward to providing our ideas for inclusion in the design.

Landscaping has been provided along Bay Street as a way to enhance the visual value of the area however, it is in need of maintenance. We received correspondence from the Airport Director stating that the airport will clean, weed and trim some of the shrubs that hang out into the streets. He also indicated that the airport will look into planting additional shrubs. Thank you for this effort as this will improve the visual impact the landscaping has in this area.

Additionally, SFIA staff committed to installing a tree noise buffer strip along the length of Bay Street between Santa Paula Avenue and Madrone Street. This would expand upon previous discussions to provide a tree noise buffer for the Bayside Manor area. The proposed tree noise buffer would be a continuous screen for the entire area (beginning at the southern border of Bayside Manor at the Highline Canal and extending north along the residential housing, across the open area and finally parallel to Bay Street to the northern border of Bayside Manor at Madrone Street). We look forward to the opportunity to review and comment on the noise buffer plans prior to construction.

Construction Impacts

Construction noise is described in the report on page 31 - Mitigation Measure No. 2, as being limited to the hours of 7:30 a.m. to 4:00 p.m. Because this is a residential neighborhood, we would like to see the construction hours further restricted to a starting time of 8:00 a.m. It will also be required that workers not gather in the streets before, during or after work hours. Contractor's vehicles, worker's vehicles and construction equipment should park on-site. SFIA staff will prepare a construction-parking plan for the City's review prior to construction.

It is our understanding that one site visit per month will be required for routine maintenance after the project is completed and the facility is operational.

Street Damage

We appreciate your understanding of the negative impact that trenching and installing underground conduits will have on Bay Street. SFIA staff has confirmed that prior to the completion of construction, the airport will resurface the entire length and cross-section of Bay Street between Santa Paula Avenue and Madrone. The design criteria to be used are as follows.

1. A 3-inch minimum asphalt plug (in two equal lifts) will be required on top of the utility trench. The overlay will add an additional 2-inches in thickness for a total paved thickness of 5-inches. The 6-inch wide "tee" will not be required on the utility trench because of the subsequent overlay.
2. Digout areas on Bay Street shall be replaced with asphalt 4-inches minimum thickness (in two equal lifts) prior to the overlay.
3. A 2-inch asphalt overlay shall be placed on Bay Street from Santa Paula Avenue to Madrone Street. Limit of work shall include the curb returns on all side streets.

The first part of the report deals with the general situation of the country and the progress of the work of the Commission. It is followed by a detailed account of the work of the Commission in the various departments of the country.

The second part of the report deals with the work of the Commission in the various departments of the country. It is followed by a detailed account of the work of the Commission in the various departments of the country.

The third part of the report deals with the work of the Commission in the various departments of the country. It is followed by a detailed account of the work of the Commission in the various departments of the country.

The fourth part of the report deals with the work of the Commission in the various departments of the country. It is followed by a detailed account of the work of the Commission in the various departments of the country.

The fifth part of the report deals with the work of the Commission in the various departments of the country. It is followed by a detailed account of the work of the Commission in the various departments of the country.

The sixth part of the report deals with the work of the Commission in the various departments of the country. It is followed by a detailed account of the work of the Commission in the various departments of the country.

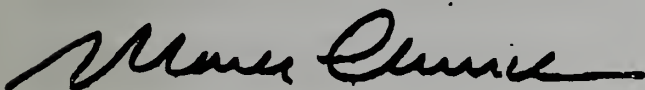
4. A 6-foot wedge cut next to the edge of gutter (along both sides of Bay Street) and 10-foot transverse wedge cut at all the limits of work shall be used to match existing pavement.
5. The existing asphalt gutter on Bay Street at Cedar Street is used to get water across the street and must remain at its current elevation. To resolve the drainage problem that would occur by adding an additional 2-inches of thickness to Bay Street, either
 - (a) Install a new storm drain line intercepting the existing catch basin at Cedar Street and crossing Bay Street to a new outlet behind the curb on airport property, or
 - (b) Perform pavement reconstruction on Bay Street at Cedar Street to create a 20-foot wide depressed pavement section that will enable water to cross the street.
6. All substandard storm drain inlets on Bay Street shall be replaced so as to conform to the new City Standard catch basin. Two (2) catch basins need replacing at San Jose Avenue and two (2) need replacing at Cedar Street. (City of Millbrae will reimburse this cost)
7. An encroachment permit will be required from the City of Millbrae for all work in the public right-of-way. Permit requirements may be addressed to Merrill Buck at 259-2446.

Compatibility with Existing Zoning and Plans

The reference to the 1991 City of Millbrae General Plan on page 12 of your report is invalid as the 1991 General Plan was never adopted. The 1974 General Plan is currently in effect. Under the 1974 General Plan, the area is designated as open space and as such, landscaping shall be encouraged to enhance the visual value. This area (to the Bayshore freeway), although owned by utility companies and the airport, is also identified as a scenic view and as such, any development in this area may cause substantial impact to adjacent residential properties.

Please keep us informed of your schedule and scope of work as the project develops or changes.

Sincerely,



Mark Church
Mayor

cc: Jim Erickson
Lou Sandrini
Ralph Petty
Ralph Kachadourian
Merrill Buck
Lyn Calderine

Carole K... - Fax (415) 554-0796
Files

JUL 07 1998

SAN FRANCISCO
PUBLIC LIBRARYNEGATIVE DECLARATION

Date of Publication of Preliminary Negative Declaration: March 28, 1998; as amended June 19, 1998

Lead Agency: Planning Department, City and County of San Francisco
1660 Mission Street, 5th Floor, CA 94103Agency Contact Person: Brian J. Kalahar, AICP Telephone: (415) 558-6359

Project Title: 97.051E SFIA Station MA Electrical Substation

Project Sponsor: San Francisco Airports Commission

Project Contact Person: Nixon Lam Telephone Number: (650) 794-5347

Project Address: SFIA, southeast of the intersection of Bay St. and Santa Paula Avenue

Assessor's Block(s) and Lot(s): 092-030-070

City and County: Millbrae, California

Project Description: The project entails expansion of the electrical facilities currently serving the San Francisco International Airport (SFIA). Pacific Gas & Electric, pursuant to a Special Facilities Agreement between PG&E and the City, would construct, install and maintain a new transformer and appurtenant facilities. The proposed site of the new transformer is on SFIA property west of the Bayshore Freeway, within the City of Millbrae. The site is near the intersection of Bay Street and Santa Paula Avenue.

Expansion of electrical service is included in the SFIA Master Plan, and is evaluated in a general manner in the SFIA Master Plan Final Environmental Impact Report (FEIR). The site for the new transformer is not identified in the SFIA Master Plan, nor was it evaluated in the FEIR

Building Permit Application Number, if Applicable:

THIS PROJECT COULD NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT. This finding is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15064 (Determining Significant Effect), 15065 (Mandatory Findings of Significance) and 15070 (Decision to Prepare a Negative Declaration), and the following reasons as documented in the Initial Evaluation (Initial Study) for the project, which is attached:

-Over-

Mitigation measures, if any, included in this project to avoid potentially significant effects: see text

Final Negative Declaration adopted and issued on

6/19/98

In the independent judgement of the Department of City Planning, there is no substantial evidence that the project could have a significant effect on the environment.



HILLARY E. GITEMAN
Environmental Review Officer

cc: Leavelle Davis
Distribution List -- notice only
Melba Yee
Lyn Calerdine
Alain Billot
Bulletin Board
Master Decision File

INTRODUCTION

A Program Environmental Impact Report (EIR) was prepared for the San Francisco International Airport (SFIA) Master Plan between 1991 and 1992. It encompassed landside modifications and expansion plans through the year 2006. The San Francisco Planning Commission certified the SFIA Master Plan Final Environmental Impact Report (FEIR) on May 28, 1992. The San Francisco Airports Commission approved the SFIA Master Plan and accompanying Mitigation Monitoring Program and conditions of approval on November 3, 1992, following a series of public workshops and public hearings.

The guidelines for implementing the California Environmental Quality Act (CEQA) describe a Program EIR as one that evaluates a series of actions that can be characterized as one large project and that are, among other possibilities, related geographically or as logical parts in a chain of contemplated actions (*CEQA Guidelines*, Section 15168). A Program EIR permits the Lead Agency to efficiently consider overall cumulative effects of a large group of contemplated activities and to avoid duplication and repetition in subsequent environmental review of individual projects included in the overall program.

The SFIA Master Plan involves a number of individual projects related both geographically and as logical parts in a chain of actions to expand, improve, and reorganize landside functions and facilities at SFIA. The Plan is a two-phase design/management for Airport facilities and systems. SFIA is currently initiating planning and construction of projects described in the Master Plan. Individual projects proposed under the SFIA Master Plan must be reviewed in light of the information in the FEIR to ensure that the project was adequately analyzed therein and that no new environmental analysis is required.

This Negative Declaration evaluates one SFIA project in detail: the Station MA Project. The purpose of the Station MA Project is to ensure adequate electrical power to serve Airport development anticipated by the SFIA Master Plan. Although the need for a project similar to this one was described and, to a limited extent evaluated in the FEIR, its specific characteristics had not yet been determined.

For the preparation of this Negative Declaration, all of the potential environmental impacts of the proposed project were considered in an "Environmental Checklist Form" and in discussions that are presented at the back of this document. The environmental evaluation of the proposed project is presented here as a subsequent Negative Declaration, pursuant to *CEQA Guidelines* Section 15162 and Section 15070. The City and County of San Francisco Planning Department, Office of Environmental Review has determined that additional environmental review is required because (1) key characteristics of the Station MA Project, including siting and operation of the new transformer, were not evaluated in the FEIR, and (2) information concerning physical

conditions at the project site suggest the potential for new significant impacts that would require mitigation to be reduced to less-than-significant levels. For the most part, however, a preliminary review indicated that the proposed project could result in few impacts not already identified in the EIR. More detailed analyses of potential impacts were developed in the following areas, where further consideration was warranted: visual quality, biological resources, and hazards. The PND also discusses issues related to compatibility with existing zoning and plans; cultural resources, land use, population, transportation and circulation, noise, air quality/climate, utilities/public services, geology/topography, water, and energy/natural resources.

PROJECT DESCRIPTION

BACKGROUND

Hetch Hetchy Water and Power, a department of the City and County of San Francisco, generates the electric power supplied to the City, including the Airport. Hetch Hetchy pays a fee to Pacific Gas and Electric Company (PG&E) to transmit power from its hydroelectric generation facilities over PG&E lines. PG&E transmits this power through high-voltage aerial transmission lines. In the vicinity of the Airport, these aerial transmission lines parallel US 101 to the southwest. PG&E's Millbrae Substation and the SFIA Main Substation tap power from these aerial transmission lines in order to supply the Airport.¹ Transformers at these substations step the voltage down from 115 kilovolts to 12 kilovolts. From the transformer at the Millbrae Substation, the power is transmitted via a 12-kilovolt distribution line to SFIA's existing Station M for distribution to the Airport. The PG&E Millbrae Substation, SFIA's Station M, and the SFIA Main Substation are located west of U.S. Highway 101 (US 101). Three 12-kilovolt feeder lines connect the SFIA Main Substation and Station M to the Airport. The feeder lines transmit the electricity via underground conduits to other, smaller substations and load centers located throughout the Airport.

Most of the electricity used at the Airport is for lighting, air conditioning, and machinery operations (FEIR, pp. 178 to 180). On average, SFIA uses about 28.9 megawatts (MW) at any given 15 minute period during a normal operating day. The existing overall peak demand over a 15-minute period is about 37.5 MW.

The FEIR analyzed the effect of near- and long-term development on the existing Airport electrical distribution system by categorizing each of the proposed projects by its function, and estimating the wattage per-square-foot for each category. The total electrical load for facilities to be demolished as part of the SFIA Master Plan was subtracted from the total electrical load for new facilities. The forecast net electrical load increase was estimated at approximately 13.5 MW for near-term SFIA projects, and an additional 1.6 MW for long-term SFIA projects; equal to a total increase of 15.1 MW (FEIR, pp. 366 to 369). SFIA requested an increase in the amount of electrical power provided from PG&E to meet forecast short- and long-term energy requirements.

To meet anticipated future demands for electricity, SFIA requested that PG&E increase the amount of electrical power it delivers to the Airport by 15 MW, with an additional 10 MW increase by 2006. The Millbrae Substation transformer for SFIA electrical demand has a

¹ The SFIA Main Substation and PG&E's Millbrae Substation serve all SFIA facilities except the United Air Line Maintenance Center, which is served directly by PG&E's South San Francisco East Grand Substation.

maximum capacity of 46.3 MW, which is insufficient for meeting future demands. PG&E determined that in order to meet anticipated future demand for electrical power, an additional substation to supplement the Millbrae facility would be required. The purpose of the Station MA Project is to provide sufficient electrical capacity to meet forecast demand at the Airport by siting and operating a new 115/12 kilovolt substation.

SFIA, assisted by LSA Associates (a consulting firm specializing in biological resource issues), investigated several alternatives for siting the new substation in a location proximate to Station M and the Millbrae Substation, within what is referred to as the "West of Bayshore" property.² The West of Bayshore property is a strip of undeveloped land varying between 150 feet and 800 feet wide that lies adjacent to and along the westerly side of US 101. The City and County of San Francisco owns most of this land, which is managed as part of the SFIA property. The terrain of the Bayshore property slopes from the southwest to the northeast with water draining to several canals that traverse the parcel. In various sections, water pools into seasonal wetlands. The West of Bayshore property is generally considered habitat for the San Francisco garter snake and the California red-legged frog; these species are listed as endangered and threatened, respectively, by the U.S. Fish and Wildlife Service, (USFWS). San Francisco Garter Snake and the California Red-Legged Frog have also been listed by the California Department of Fish and Game as endangered and a species of special concern respectively. A primary focus of SFIA's investigation was to avoid or minimize potential impacts to the habitat of these species and to seasonal wetlands. The site identified as the apparent best alternative for the new substation is described in the following section.

PROJECT CHARACTERISTICS

This report evaluates the actions necessary to construct and operate the Station MA Project, including the following:

- Siting, constructing and operating a new transformer and appurtenant equipment;
- Installing equipment (a 115-kilovolt Tap and 115-kilovolt bus structure) to transmit power from a PG&E high voltage aerial transmission line to the new transformer; and
- Connecting the new transformer to SFIA's existing Station M via a new underground 12kv distribution line.

² Several alternatives were explored for siting the new transformer, including expanding the Millbrae Substation, expanding Station M, and siting the transformer at a new location. PG&E initially devised a project involving an expansion of the Millbrae Substation, whereby PG&E would assume ownership of and operate a new transformer to serve the Airport. This plan was inconsistent with policies of the City and County of San Francisco to own all equipment that directly and solely serves City loads. Conversely, PG&E allows only PG&E-owned equipment on its sites; consequently, this approach was abandoned. SFIA then proposed to expand Station M; PG&E objected to that alternative based on the proximity of Station M to its high-voltage aerial transmission lines. SFIA subsequently undertook a study to find a suitable location for the new transformer. That study identified the site near the intersection of Bay Street and Santa Paula Avenue (the proposed project).

Figures 1 and 2 depict the project's regional location and vicinity. The proposed site for the new transformer, Station MA, and the interconnecting transmission line would be located on property owned by the City and County of San Francisco and administered by SFIA, within the West of Bayshore property. PG&E's high-voltage aerial transmission lines and towers occupy a 140-foot wide easement within the West of Bayshore property. The proposed project is within boundaries of the City of Millbrae; the proposed location of the new substation is near the intersection of Bay Street and Santa Paula Avenue in the single-family subdivision of Marina Vista. SFIA's Station M is adjacent to the Marina Vista neighborhood, near the intersection of Cedar and Bay Streets and next to Marina Vista Park. No changes are proposed to Station M. The Millbrae Substation is south of the transformer site, between the single-family subdivisions of Marina Vista and Bayside Manor. No changes are proposed to the Millbrae substation as well.

Described below are the elements comprising the Station MA Project. Figure 3 presents a conceptual site plan for the new substation and indicates the locations of the existing PG&E tower and proposed 115-kilovolt tap and 115-kilovolt bus structure at a tap to either high voltage line #2 or #5. Figure 3 shows the area of substation footprint as well as the temporary work area for two alternative taps. At the time of construction, only one tap would be made to either line #2 or line #5, but not to both.

115-Kilovolt Tap

The existing PG&E tower located nearest to the corner of Bay Street and Santa Paula Avenue carries two circuits (of three conductors for each circuit) connecting PG&E's San Mateo Substation with the Martin Substation near Geneva Avenue at Old Bayshore.

As part of the project, PG&E would add a new "takedown" structure consisting of two tubular steel poles about 35 to 40 feet in height and located about 60 to 130 feet south of the existing PG&E tower. The purpose of the "take-down" structure is to bring conductors from the easterly side of the two circuit tower lines and pass the conductors from the easterly circuit under the westerly circuit into the substation. The tubular steel poles of the "take-down" structure would be connected at the top by a cross bar that would support three insulators for each of the conductors.

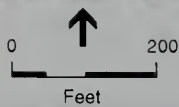
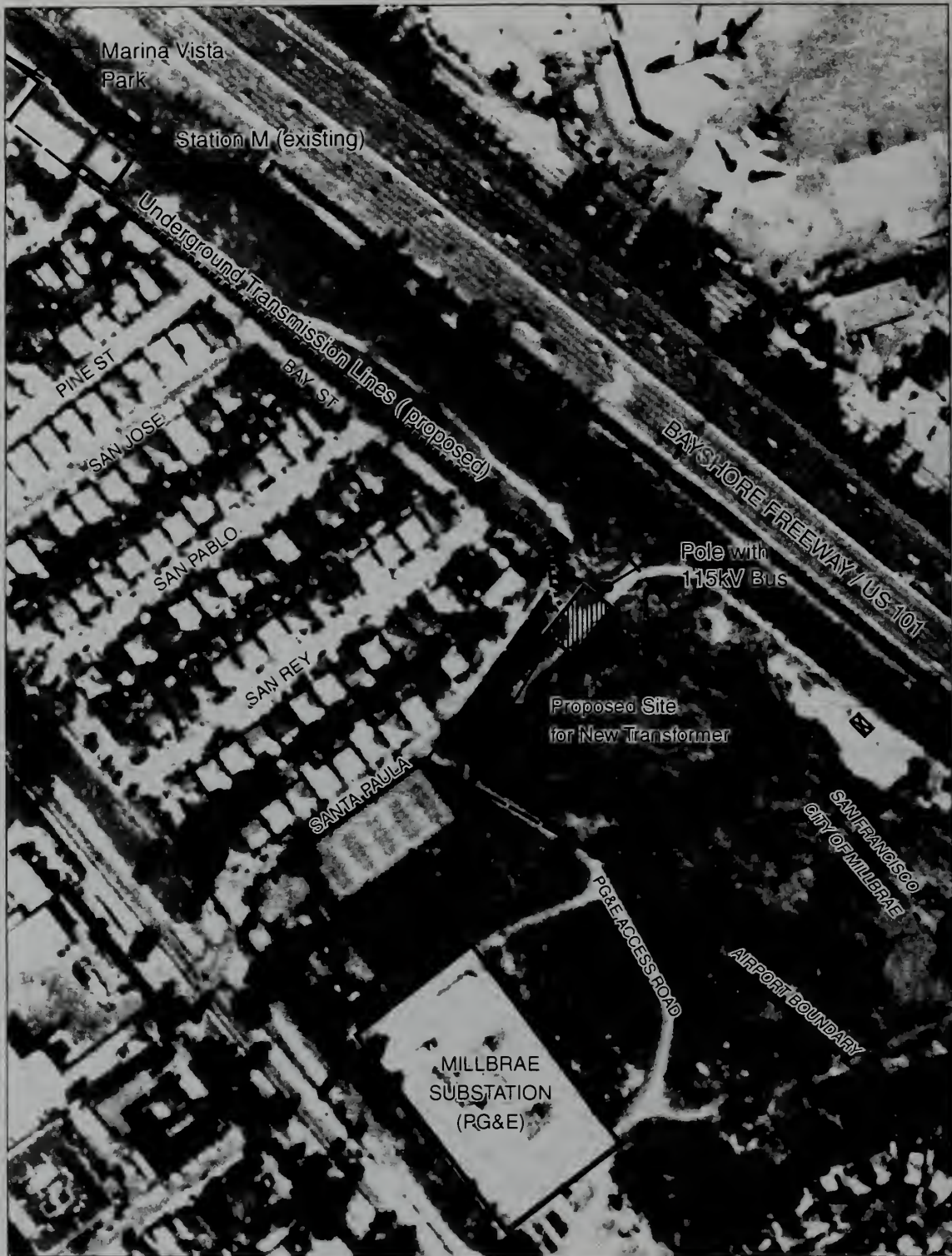
The existing PG&E tower would be retrofitted with additional cross-arms installed perpendicular to the existing cross-arms and used to direct the conductors to the southerly side of the pole. Three new conductors would then be strung from the existing PG&E tower to conductors connecting the "take-down" structure with the bus structure which will be located within the substation (see Figure 6). Each of the "take-down" structure tubular steel poles will be bolted to a steel-reinforced concrete drilled pier foundation. Each foundation will have a foot-print of six feet by six feet. The area of temporary construction disturbance would be approximately 3000 square feet.





SOURCE: Environmental Science Associates, 1998

SFIA Station MA Project / 900154P ■

Figure 1
Project Vicinity

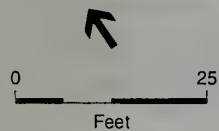


-  Project Site
-  PG&E Towers

SOURCE: Environmental Science Associates, 1998

SFIA Station MA Project / 900154P ■

Figure 2
Project Components



- SFIA Station MA Project / 900154P ■

8

Alternatively, the foundation for the tubular steel structure would be attached to twelve driven wood piles tied to a 13 foot by 13 foot concrete pad . The pole would be bolted to a 5 ½ - foot diameter concrete base projecting from the center of the pad. The concrete pad would be covered with six inches of soil after installation of the “take-down” structure.

Transformer

A 55-Megavolt-ampere (MVA) transformer would be used to convert the 115-kilovolt power to 12-kilovolt power. In addition to the transformer, on-site equipment would include: switch-gear and related equipment; a PG&E metering cabinet; a relay cabinet; and an oil retention pond (to provide secondary containment for oil used to insulate the transformer). The transformer and switchgear is a compact combination unit. The conceptual layout for the transformer and related equipment, shown in Figure 3, would require a footprint approximately 125 feet by 100 feet (12,500 square feet), including a concrete pad for the transformer and switch-gears, and a 12-foot gravel access road surrounding the pad. The proposed conceptual layout footprint does not include the 115-kilovolt tap, 115-kilovolt bus, or the new underground transmission line to Station M. However, both of these structures would be within the area that would be potentially disturbed by construction, an area estimated to be between 0.46 acre and 0.6 acre, depending upon where the tap to the high voltage line is made.

The existing site consists of eroded asphalt road bed and natural ground covered with ruderal vegetation. Construction would require removal of shrubs and trees along Santa Paula Avenue. Site development would involve excavation of the foundation for the transformer, pouring the concrete to form the foundation, grading the access road encircling the foundation, installing the transformer and appurtenant equipment, construction of a substation fence, and site clean-up. The construction staging and spoils area would be within and immediately adjacent to the transformer site. No stockpiling of material would occur in the temporary work area under the existing high voltage transmission lines. For the purposes of this environmental evaluation, the construction footprint (the area that could be disturbed by construction activities) for the proposed transformer site is assumed somewhat larger than the site boundaries, estimated to be between 0.46 acre and 0.6 acre. A geotechnical evaluation accessing the site for development assumed that excavated soil would be hauled off site for landfill disposal. Wetland areas would be fenced off to prevent disturbance by construction equipment.

Access to the site for station MA during project development and construction, would be accomplished by utilizing a new PG&E access road served by a driveway off Santa Paula Avenue and Bay Street (see Figure 3). The maintenance road along the right of way would not be used.

Grounding System

For safety of personnel and equipment, the National Electrical Code requires that all electrical systems be effectively grounded. This is accomplished by providing the lowest practical resistance between circuit neutrals and true earth. A typical grounding system for an electrical substation contains a mesh or grid of buried conductors supplemented with deeply placed electrodes, $\frac{3}{4}$ inch in diameter and 8 $\frac{1}{2}$ feet long, at several points approximately 20 to 30 feet apart.

For the Station MA project, the ground grid would consist of two parallel runs of copper cables buried 18 inches below grade level lengthwise and four cross runs widthwise, forming a grid. Each corner of the grid would be supplemented with a $\frac{3}{4}$ -inch diameter and 12 foot long ground rod driven into the ground. Eight more ground rods are connected to the ground grids at critical current points, such as lightning arresters and transformer neutral bushings. The completed grounding grid system, including the ground rods, will stay permanently buried beneath the substation.

Distribution Feeders to Station M

Two underground feeder cables would run along Bay Street. No overhead poles or lines would be utilized. Six inch conduits would be used to carry these cables to SFIA's Station M (Figure 2). The two feeder cables would run underground in a trench between Bay Street and the fence line separating the existing transmission line right-of-way. A trench would be excavated to a depth of about six feet, within which the conduit and cables will be laid. The excavated soil would be reused to fill the trench after the cables have been put in place. Any residual excavated soil would be hauled off site for landfill disposal. The existing overhead line would be removed after the trenching work to lay the new conduit and cable is completed.

CONSTRUCTION DETAILS

The Station MA project would be constructed between July 1998 and December 1998. If the project is approved, SFIA would begin to prepare the site and construct the foundation for the transformer in July, 1998. The new transformer would be installed by September, 1998. Construction of the Tap structure will last less than six weeks. Residual clean-up of the site would last through November 1998 and complete testing, calibration and energizing is expected to be finished by December, 1998.

Construction materials would be hauled on public streets including streets in the City of Millbrae; the substation site and utility pole locations would be accessed from Santa Paula Avenue and Bay Street. Construction staging would be contained within the station site.

Construction activities would generally include excavation, filling, grading, paving, pavement removal, and concrete pouring. Construction equipment would include graders, paving

machines, rollers, backhoes, compactors, concrete mixers, haul trucks, crane-hoist, and concrete boom pumps (among others).

SFIA would attempt wherever possible to use local materials for fill. Stockpiles of excavated materials would be established on site but outside the temporary work area under the existing high voltage transmission lines. Standard measures (such as covering with tarps) would be used to keep soil from blowing away. Special excavation and fill requirements (one foot of crushed rock placed on the graded ground and beneath the concrete substation pad) for the Station MA project are expected.

Construction activities would occur during daylight hours. All construction would take place between the hours of 7:30 am to 4:00 pm.

ENVIRONMENTAL IMPACTS

COMPATIBILITY WITH EXISTING ZONING AND PLANS

Existing zoning and plans for communities near SFIA are described on pages 84 to 118 of the FEIR; compatibility of the SFIA Master Plan with existing zoning and plans was analyzed on pages 253 to 259. SFIA is in San Mateo County, so changes to the San Francisco City Planning Code and Zoning Map are not applicable. SFIA (as a publicly-owned property of the City and County of San Francisco) is not subject to land use regulations of local jurisdictions. Many of the relevant policies of the surrounding jurisdictions discussed therein relate to aircraft activities; these policies are not relevant for the Station MA Project, since the project would not directly affect aircraft activity.

The Station MA Project site is on SFIA-owned property within the City of Millbrae. Although not subject to local land use regulation, the project site and that portion of the West of Bayshore parcel that is within the City of Millbrae are zoned Open Space (O). The area including the Millbrae Substation and lands west of the Substation are zoned Industrial (I). The Marina Vista neighborhood adjacent to the transformer site is zoned Low Density Residential (R-1). The project site is located in an area that already includes substantial utility infrastructure (e.g., transmission lines, electric substations, natural gas, sanitary sewer and potable water).

Although a revised General Plan was prepared in 1991, it was never adopted. The City of Millbrae is currently undertaking a comprehensive update of the General Plan. Therefore, the 1974 General Plan is still currently in effect. Under the 1974 General Plan, the project site vicinity is designated as open space and as such, the City of Millbrae encourages landscaping to enhance the visual value of the area.

The proposed Station MA Project would affect environmentally sensitive habitats in the West of Bayshore property to a lesser degree than other feasible alternatives that have been investigated. The proposed transformer site is on the fringe of West of Bayshore Property, and is underlain with degraded pavement. Relevant mitigation measures identified in the FEIR also would apply to the Station MA project. Consequently, the Station MA project would not substantially conflict with existing zoning or land use plans.

CULTURAL RESOURCES

Existing cultural resources at SFIA are described on pages 183 to 191 of the FEIR; cultural resource impacts of the SFIA Master Plan were analyzed on pages 371 to 373. The FEIR analyzed cultural resources impacts for SFIA-managed property east of US 101. Because the

Station MA project would be located west of US 101, its potential to affect cultural resources is evaluated in this document.

Records indicate that the entire project area has been surveyed for cultural resources. The Station MA Project would involve surface or near-surface construction in areas that previously have been subject to construction activities. Maximum excavation for the new facilities could be up to 13.6 feet in depth. Excavation for installation of new utility poles would not exceed a depth of 12 feet at any location on the project site. Native American archaeological sites in this portion of San Mateo County tend to be situated on alluvial flats and historic bay margins. The project area is situated on the historic bay margins in an area that was once a salt marsh and that is known to have water saturated clay and peat soils (Helley 1979). Archaeological sites can also be found near the margins of former marsh lands. This project area encompasses all of the aforementioned environments (Compas, 1996).

A review of records and literature on file at the Northwest Information Center was performed as part of the cultural resources analysis. The research indicates that the proposed Station MA Project area contains no recorded Native American or historic cultural resources listed with the Historical Resources Information System. State and federal inventories list no historic properties within the project area.

The Station MA site has been previously disturbed, as a residence used to exist within the area of the proposed project footprint. Since excavation on the site would be limited, there would be a very low potential that construction of the project would uncover or affect any unidentified Native American, archaeological or historic cultural resources. However, should such artifacts be encountered, the project sponsor agrees to implement the mitigation measure specified below.

LAND USE

Although SFIA is in San Mateo County, its land uses are governed principally by the City and County of San Francisco. Land uses at the Airport are categorized broadly into two categories: airside and landside. The landside category is further divided into 12 functional classes. The Airport as well as "Airport Support" land uses can generally be described as those uses serving the public interest as well as private interests, and include crash/fire/rescue (CFR) stations, facilities relating to utility supplies and distribution, storm and sewer drainage facilities, airport administration, airport engineering, maintenance and storage facilities, public parking, and bank and hotel services. The Station MA Project would be considered an "Airport Support" landside use. As of the date of the FEIR, approximately 87 acres (1.7 percent of total SFIA land) were devoted to airport support land uses.

The FEIR analysis of land use impacts is presented on pages 250 to 264. The FEIR considered land use impacts from the development of vacant parcels on SFIA property, but did not evaluate development on the West of Bayshore site. The Station MA Project would accommodate but

would not change the anticipated number of passenger flights or passenger volumes analyzed in the FEIR; therefore, the project would not speed development or cause new types of land uses to be developed within the Airport region, including the City of Millbrae.

The Station MA project would be located entirely on Airport property. The primary land uses in the vicinity of the project site include the Marina Vista neighborhood (single-family residences), US 101, the PG&E towers and aerial transmission lines, and the PG&E Millbrae Substation (see Figure 4). Because the development of the station MA project would not require changes to adjacent existing land uses and the site is located entirely on San Francisco International Airport property, there would be no impact on land use as a consequence of the proposed project.

VISUAL QUALITY

Visual quality impacts of the SFIA Master Plan were not analyzed in the FEIR (see FEIR Volume III, Appendices, Appendix A, Initial Study, 1992).

The proposed site for the transformer, 115-kilovolt tap, 115-kilovolt bus structure, and second 12-kilovolt line to Station MA is located in a setting of mixed residential, open space, commercial and industrial land uses, with two major transportation corridors crossing the area. The visual setting can be described as a blend of these elements. The viewshed is dominated by the PG&E power line support structures, which are the tallest objects in the area, the aerial transmission lines they suspend, and a large aircraft hanger adjacent to the easterly side of US 101 (see Figure 5). Millbrae Substation to the south has an industrial appearance, with lattice steel support structures, transformers and circuit breakers enclosed within a chain-link fence. US 101 and the Caltrain railroad tracks just beyond the Millbrae Substation are lined with mature vegetation and trees. The residential areas are characterized as low-profile, single-family homes. The open space area consists of a grassy area bounded by trees and dense vegetation along Santa Paula Avenue and a line of trees along sections of Bay Street. The nearest public park, Marina Vista Park, is located approximately 1,100 feet to the northwest of the intersection of Bay Street and Santa Paula Avenue.

The Station MA Project would consist of surface paving, excavation, limited underground construction, installation of an above-ground transformer, installation of new poles to suspend the bus and 115-kilovolt tap, and a cement block wall (ten feet in height) at the site perimeter. The wall would face Bay Street, Santa Paula Avenue, and the western perimeter of the site (see Figure 6). The wall would have a solid metal fire-rated gate facing the intersection of the two streets. In addition, new fencing will be placed on the eastern perimeter of the project area, and new or replacement fencing would be put on the south perimeter of the site.

The transformer and appurtenant equipment, including the bus and 115-kilovolt tap, would be located behind a ten-foot cement block wall, partially visible in near-range views along



SFLA Station MA Project / 900154P ■

Figure 5
Existing View of Project Site from the Corner
of Santa Paula Avenue and Bay Street

SOURCE: Environmental Science Associates



SOURCE: Environmental Science Associates

SFLA Station MA Project / 900154P ■

Figure 6
Massing Diagram of Project from the Corner
of Santa Paula Avenue and Bay Street

Bay Street and along Santa Paula Avenue, medium-range views from some streets within the Bayside Manor subdivision located southeast of the Millbrae Substation, and private residences along these streets (see Figure 6). The new transformer would also be visible from vehicles traveling the southbound lanes of US 101, but would not represent a significant visual effect because views would be of short duration and partially or wholly screened by vegetation. The transformer would be 18 feet in height; the top of the poles suspending the bus and 115-kilovolt tap would be approximately 35 feet above ground level. The transformer, bus, 115-kilovolt tap, and interconnecting transmission lines would have an industrial appearance similar to the Millbrae Substation, but on a smaller scale. Although the open space area is not visually pristine, it offers some relief from the surrounding developed uses; the project components described above would introduce an offensive element into that view. To reduce the visual effects of the project along Santa Paula Avenue and Bay Street, SFIA would screen views of the transformer, the bus and the 115-kilovolt tap with a ten foot high cement block or concrete panel wall along the Santa Paula Avenue side of the substation site. The wall would also be screened with appropriate landscaping such as ivy or other vegetation. The landscaping would also serve as a deterrent to graffiti. There would be an 18-foot wide solid metal gate that would open on to Bay and Santa Paula Streets adjacent to the curb cut for the PG&E access road. The bus and 115-kilovolt tap would be visible in some views along Bay Street, but existing vegetation would provide visual screening. These measures, along with the existing vegetation, would substantially reduce the visual effects of the project. The Station MA project would not, therefore, degrade or obstruct any scenic views from public areas.

Lighting for the substation would be provided to illuminate the electrical equipment for maintenance purposes and emergencies only. These fixtures would not be routinely lit on a nightly basis. Each fixture would be situated nine feet above the yard surface and designed with prismatic glass to provide downward directional lighting. Two fixtures are planned for the site, each with a 200 watt incandescent lamp. There would be no night time security lighting system. Because of its design and limited emergency related use, project lighting would not create any significant light and glare impacts.

POPULATION

SFIA employment and residence patterns are presented on pp. 228 to 231 of the FEIR; employment- and housing-related impacts of the SFIA Master Plan were analyzed on pp. 394 to 399. Subsequent to the FEIR, changes to the Parking Lot D project from what was analyzed in the FEIR, and the West Field projects and the South Field holding area project, were determined to result in the addition of approximately 325 additional construction employees (ESA, 1996). The Station MA Project would result in the need for up to 20 construction employees during the construction period (July 1998 through December 1998). Construction work would occur in phases; the peak period of activity would occur during the first three months of the construction period, when the foundation and site work for the transformer would occur.

The FEIR estimated an average of 1,400 full-time construction jobs a year during construction of SFIA Master Plan projects in the near-term, with a peak of 2,400 construction workers. Additional construction employment required for the Station MA Project would fall within the estimates analyzed in the FEIR (with the modification that the near-term impacts analyzed in the FEIR would apply to the 1996 to 2000 time frame).

Operation of the project would require periodic maintenance and servicing activities, which would be conducted by Hetch Hetchy employees; therefore, the project would not increase the total number of SFIA employees beyond what was analyzed in the FEIR.

The Station MA Project would accommodate project growth at SFIA by providing additional electrical power to a system where the existing electrical capacity cannot meet projected needs. The availability of electrical capacity, by itself, would not encourage population growth within the project area. The project would not result in additional employment-generating uses and thus would not have additional long-term effects on population, employment, or the demand for additional housing.

TRANSPORTATION AND CIRCULATION

The transportation setting is presented on pp. 125 to 152 of the FEIR; transportation impacts of the SFIA Master Plan were analyzed on pp. 265 to 330. Increases in traffic, changes in circulation patterns, demand for transit, and demand for parking were analyzed. Although most of the background and transportation impacts discussed in the FEIR would apply to the Station MA Project, the FEIR did not consider the transportation impacts of site development at the Station MA Project site.

The Station MA Project could result in temporary traffic diversions at the corner of Bay Street and Santa Paula Avenue during project construction. Diversions could include temporary blocking of travel lanes along these roadways to facilitate movement of construction equipment. During periods when lanes must be blocked, cones and a flagman would be used to direct traffic. SFIA's contractors would obtain all required permits from the City of Millbrae for work that could affect travel on city streets. However, given the low volume of traffic along these roadways and the limited duration of construction, this impact would be considered less than significant.

Project construction would require approximately 20 construction employees for the duration of the construction period. Construction workers traveling to and from the project site would add up to 40 daily trips (20 in the morning and 20 in the evening) to the local roadway network beyond what was analyzed in the FEIR. Construction workers would park along Bay Street and Santa Paula Avenue.

The project would not result in significant modifications to the existing circulation system. The proposed access road would provide emergency access to the project area and for PG&E employees to check meters and perform routine maintenance. Monitoring and maintenance activities are not expected to add more than one vehicle trip per day. Except for construction traffic, the estimated vehicle trips generated by the project would not increase traffic on the local roadway network beyond what was analyzed in the FEIR.

NOISE

Environmental noise usually is measured in A-weighted decibels (dBA)³. Environmental noise typically fluctuates over time, and different types of noise descriptors are used to account for this variability. Typical noise descriptors include the energy-equivalent noise level (Leq) and the day-night average noise level (Ldn)⁴. The Ldn is commonly used in establishing noise exposure guidelines for specific land uses. Generally, a three-dBA increase in ambient noise levels represents the threshold at which most people can detect a change in the noise environment; an increase of 10 dBA is perceived as a doubling of loudness.

The noise setting for SFIA Master Plan projects is presented on pp. 158 to 170 of the FEIR; noise impacts of the SFIA Master Plan were analyzed on pp. 331 to 352. The FEIR evaluated noise impacts on residential areas located west of U.S. 101, but did not consider site-specific development at the end of Bay Street and Santa Paula Avenue. The Station MA Project would not involve the construction of structures that would need to meet California Code of Regulations Title 24 noise standards and, consequently, would not violate those standards.

As described in the FEIR (p. 153), the existing noise environment in the vicinity of the project site is primarily influenced by vehicle traffic on U.S. 101 and by air traffic associated with SFIA. Residents at the corner of Bay Street and Santa Paula Avenue currently experience ambient noise levels of 65 Ldn.⁵

Construction noise is described in the FEIR on pp. 331 to 332. Typical noise levels for construction activities and the distances of various noise contours from the construction sites are presented in the FEIR. Potential impacts to the Airport Hilton Hotel, the Lomita Park Elementary School, the Lomita Park residential neighborhood, and other Millbrae neighborhoods

³ A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response of the typical human ear at commonly encountered noise levels.

⁴ Leq, the energy equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level that actually occurs during the same period. Ldn, the day-night average noise level, is a weighted 24-hour noise level. With the Ldn descriptor, noise levels between 10:00 p.m. and 7:00 a.m. are adjusted upward by ten dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise.

⁵ Environmental Science Associates measured noise levels at the corner of Santa Paula Avenue and Bay Street over a 24-hour period beginning on Monday, February 3, 1997 at 4:00 p.m., using a Metrosonics dB-308 sound level meter, calibrated prior to use.

were analyzed, and noise levels with and without pile driving were calculated. The FEIR concluded that noise levels at the Hilton Hotel would be disruptive to hotel guests, and that noise levels at the Lomita Park Elementary School, Lomita Park residential area, and residential land uses closer to the Airport than Lomita Park residential area would be "normally unacceptable" to "clearly unacceptable" (with respect to State noise guidelines). The FEIR (p. 435) concludes that "The project would have a temporary, although significant, effect on sensitive receptors during project construction" and that this impact would be unavoidably significant.

While some types of construction activities used for the Station MA Project (e.g., excavation and grading) would be similar to what was analyzed in the FEIR, the total amount of construction in the area would increase due to the addition of a specific Master Plan project not previously considered in the construction noise impact analysis of the FEIR. Construction at the Station MA Project site would occur simultaneously with construction of projects elsewhere on SFIA property, potentially adding to the cumulative effect of construction noise on sensitive receptors, albeit for only fraction of the duration of SFIA Master Plan project construction. Similar to the projects described in the FEIR (p. 331), construction activities for the Station MA Project would occur only during daytime hours.

The primary construction activities associated with the project are the excavation, foundation, and other site work required for the transformer and related equipment. Pile driving may be required for up to two days out of the three to four month construction period to secure the takedown structure foundation. If pile driving is required to secure the takedown structure, the shallow depth that the wood piles must be driven and the temporary nature of the impact over one or two days would render this potential impact as less than significant. At-grade paving during the daytime would likely result in additional adverse impacts because of the distances between sensitive receptors and the project site. Residences at the end of Bay Street and Santa Paula Avenue would be as close as 80 feet from construction activities. Typical construction noise levels range from 75 to 90 dBA Leq, at a distance of 50 feet from the noisiest piece of equipment. Therefore, the exterior noise level at residences at the end of Bay Street and Santa Paula Avenue would be roughly between 70 to 85 dBA Leq. This increase in noise levels from existing conditions would be temporary and would occur during the least noise sensitive hours of the day. The project sponsor agrees to implement the mitigation measures stipulated below, which would reduce construction noise effects to a less than significant level.

The FEIR did not consider long-term noise impacts associated with locating a new transmission line and transformer adjacent to sensitive receptors. Noise from corona discharge at conductor hardware and insulators on transmission lines, especially during foggy and humid conditions and if the insulators are dusty, may be audible to the human ear (PG&E, 1995). PG&E noise measurements taken at the Millbrae Substation on July 6, 1995, indicate that while corona discharge noise from a transmission line is measurable and audible, it does not increase the overall background noise levels. The reason is because the amplitude of the corona noise, in the

form of an audible crackling sound and contained in the high frequency range (5,000-20,000 Hz), was low when compared to the traffic noise in the background (PG&E, 1995).

While in operation, the proposed transformer would produce noise levels between 64 and 67 dBA, Leq, at a distance of two meters (about six and one-half feet) from the transformer (PG&E, 1997). Assuming a 6 dBA attenuation per doubling of the distance (the attenuation that is based upon distance alone without any additional attenuation from topography or vegetation), the noise level would drop off roughly by 16 dBA by the time it reached the proposed wall at the northern edge of the property (about 43 feet from the transformer) and would drop off by 21 dBA (based on distance alone) at the nearest residence (about 80 feet from the transformer). This would mean that the sound levels at the ten foot wall would be between 48 and 51 dBA, Leq. The type of sound emitted from the transformer is that of a "hum," which is perceived by some as more annoying due to its tonal quality. In order to account for this tonal effect a penalty factor of 5 is typically factored in when assessing noise impacts. Accounting for this 5 dBA penalty factor, the sound levels at the wall would range from 53 to 56 dBA, Leq. The transformer emits audible sound primarily in the vicinity of the core and those sounds are transported to the outer shell. Therefore, most of the sound emanating from the transformer occurs from the ground level to about ten feet. Due to the height of the wall and source of the noise, the wall would afford an additional 3 dBA in sound attenuation given in particular that the wall effectively blocks the line of sight of the transformer.⁶ This would mean that the sound level at the nearest residence would be from 45 to 47 dBA, Leq (this includes the 5 dBA penalty for the tonal quality and the 3 dBA reduction from the wall). These levels associated with the transformer are considerably less than the daytime Leq of 61 dBA and the Ldn and CNEL of 65 and 66 dBA, respectively. Due to the nature of the sound emitted by the transformer, the height of the proposed wall and the relatively high existing ambient noise levels, the noise associated with the transformer would be considered a less-than-significant impact.

AIR QUALITY/CLIMATE

The air quality setting is discussed on pp. 171 to 177 of the FEIR; the air quality impacts of the SFIA Master Plan were analyzed on pp. 353 to 365. The FEIR found that SFIA Master Plan project-related surface traffic would contribute to existing violations of roadside CO concentrations and would probably lead to an increase in the frequency of violations in the project area. The FEIR also found that the SFIA Master Plan project would contribute more than one percent of transportation-related emissions resulting from development in the County, and would create emissions that would exceed Bay Area Air Quality Management District thresholds. The Station MA Project could add to the short-term emissions from construction, but these emissions would be temporary and within the envelope of construction-related impacts analyzed in the FEIR (p. 353). Emissions of criteria pollutants can also result from energy consumption. The Station MA Project would not by itself result in an increase in energy usage,

⁶ Noise and Vibration Control, Jeramek, 1988 pages 126-177

but would accommodate the projected electrical demand at SFIA. The projected increase in electrical load is discussed in the FEIR, pp. 368 to 369. The increase of two vehicle trips per day for monitoring and maintenance activities would not result in a significant increase in operational-phase air pollutant emissions. Therefore, the Station MA Project would not result in air quality impacts.

Construction activity would temporarily raise dust levels in the area, but not to a level that would have significant impacts upon air quality. However, the project sponsor has agreed to carry out a mitigation measure to reduce construction-related dust emissions.

UTILITIES/PUBLIC SERVICES

The public utilities and services setting is discussed on pp. 232 to 241 of the FEIR; impacts of the SFIA Master Plan were analyzed on pp. 400 to 406. Project components would be constructed outside PG&E's easement. Neither the proposed transformer nor other project-related equipment would be located under PG&E's existing power lines. An underground 30-inch high pressure gas main (operated by PG&E) and a sanitary sewer line operated by the City of Millbrae are located adjacent to the east side of Bay Street and continues southward past the project site (see Figure 3). Prior to project construction, PG&E would verify the exact location of the line to ensure that it would not be affected by site development. SFIA will contract the City of Milbrae, Department of Public Works to ensure that the sanitary sewer line is not disturbed by construction. No equipment would be located above PG&E's gas line. No pads or poles would be located within five feet of the gas line. A 24-inch water pipeline also is located near the transformer site (see Figure 3). The water pipeline is outside the footprint of the transformer site, and would not be affected by project construction activities.

Though no project-related equipment would be located on any existing utility lines, construction of the project could result in a temporary interruption of service for the above-mentioned utilities. In general, short-term service outages would not be expected to adversely affect most existing uses. SFIA would coordinate with and provide advance notice of construction activities to utility agencies with lines located near the project site. This would minimize the potential for accidental service outages during installation.

Because the Station MA Project would not affect passenger forecasts analyzed in the FEIR, the project would not result in an increase in demand for domestic water or sewer service, solid waste generation, and by itself, would not increase electricity and natural gas usage. In addition, the proposed project would not result in an increase in estimated population or long-term employment, and as such, would not result in increased demand for schools, recreation, or other public facilities.

BIOLOGICAL RESOURCES

This section relies on information contained in the *SFIA Master Plan Biological Opinion* (USFWS, December 13, 1996) and the *Biological Assessment for the Substation M Project, San Francisco International Airport Master Plan Improvement Project, San Mateo County, California* (LSA Associates, 1997). These references are hereby incorporated by reference.⁷

The Biological Assessment prepared by LSA Associates details project description, impacts, and mitigation associated with Station MA that were unavailable when USFWS issued the 1996 Biological Opinion.

One endangered and one threatened species are known to be present at the project site and surrounding natural area. The San Francisco garter snake, listed by the State of California and federal government as endangered, is a known resident of the West of Bayshore property. The population in this area is considered to be the largest remaining (Larsen, 1994 as in LSA, 1997). Snakes have been observed in the marsh immediately south of the Substation MA project area and South Lomita Canal immediately east of the study area. Garter snake use of the project site is considered unlikely or transitory, because the site provides unsuitable habitat for prolonged occupation (LSA, 1997).

California red-legged frog, listed by the federal government as threatened and by the State of California as a species of special concern, has been located at South Lomita Canal west of Highway 101 and east of the Southern Pacific Railroad tracks, west of the entrance to SFIA (California Natural Diversity Data Base [CNDDB] 1997). No habitat suitable for prolonged occupation by red-legged frog exists on the proposed project site (LSA, 1997). The drainage ditch located approximately 30 feet from the proposed project provides suitable movement habitat but would not be affected by the project. Red-legged frog use of the project site is considered unlikely or transitory (LSA, 1997).

The substation would be located on the portion of the site which is predominately covered by asphalt and/or a thin layer of fill over asphalt. The remaining area is dominated by herbaceous vegetation considered "upland habitat for San Francisco garter snake" (USFWS, 1996). For the tap to line #5 alternative, the total permanent impact would equal 0.37 acre (0.14 acre of undisturbed upland habitat) and the total temporary impact would be 0.09 acre (0.05 acre of undisturbed upland habitat). For the tap to line #2 alternative, the total permanent impact would be 0.37 acre (0.15 acre of undisturbed upland habitat) and the total temporary impact would equal 0.23 acre (0.17 acre of undisturbed upland habitat). No water-associated habitats that fall under the jurisdiction of the U.S. Army Corps of Engineers, San Francisco Bay Regional Water Quality Control Board, or California Department of Fish and Game (i.e., wetlands or waters of the United States) would be affected.

⁷ These documents are on file at the San Francisco Planning Department, 1660 Mission Street, Fifth Floor, (case file 97.051E).

SFIA would implement a six-part mitigation measure, specified below, in addition to any measures stipulated by USFWS and or CDFG as appropriate, to prevent impacts to San Francisco garter snake and California red-legged frog. USFWS would need to approve permit(s) related to biological resources prior to project implementation.

GEOLOGY/TOPOGRAPHY

The geological setting of SFIA is discussed on pp. 192 to 199 of the FEIR; geological impacts of the SFIA Master Plan were analyzed on pp. 374 to 379. The impacts analysis explored issues related to geological and soil conditions and facility design, excavation, construction-related erosion, and seismic hazards. The FEIR discussion would apply to the Station MA Project site.

The project site is located in a north-west trending structural trough in the Franciscan bedrock complex. Deposited over the Franciscan bedrock are the Merced and Colma sedimentary formations (PG&E, 1995). The project site lies in an area that is relatively flat with zero to two percent slopes. Based on topography at the project site, runoff is slow, and the hazard of water erosion is low (SCS, 1991).

The San Francisco Bay Area is a region of relatively high seismic activity. Major fault zones with historical activity are the San Andreas, Seal Cove-San Gregorio, Hayward and Calveras. According to San Mateo County's Geotechnical Hazards map, the potentially active Serra fault lies just under two miles west of the project site. The active San Andreas fault is located approximately three miles west of the project site (San Mateo County Planning Department, 1976). Major earthquakes on these faults would be expected to produce strong ground shaking at the project site. To prevent seismic damage, the proposed concrete pad and transformer would be designed to withstand potential high ground accelerations.

A Geotechnical report performed in 1969 indicates that the underlying soil constructions were sufficient for the construction of a concrete pond. Prior to construction of the proposed concrete pad, a site-specific soil or geotechnical investigation would be conducted to provide detailed soils information and specify design and construction guidelines for the foundation. Because the project would include only minor alterations to the ground surface, project construction would not significantly alter the topography. The potential for runoff and erosion during construction would be minimal. The Station MA Project would not expose people or structures to major geologic hazards. The project site has no unique geologic or physical features that would be affected.

WATER

Impacts of the SFIA Master Plan related to the high water table in the area were not analyzed in the FEIR because it was determined that previous construction activities at the Airport were able to proceed without resulting in adverse impacts (see FEIR Volume III, Appendices, Appendix A,

Initial Study). Impacts related to potential groundwater contamination were analyzed as part of the Hazardous Materials section of the FEIR (pp. 201 to 227 and pp. 227 to 393). Impacts related to erosion were analyzed as part of the Geology and Seismicity section (FEIR, pp. 192 to 199 and pp. 374 to 379); see also Section III.K, Geology/Topography, above. Although the discussions provided in these sections would apply to the project, the FEIR did not evaluate water impacts related to site development on the West of Bayshore property.

The project could affect surface water and groundwater resources in the vicinity of the transformer site. The Station MA Project would involve construction at depths up to 13.6 feet. Groundwater could be encountered during excavation and other construction activities. Proper construction methods, including dewatering, would be employed should groundwater be encountered. Dewatering activities would comply with applicable regulations for handling and disposal, and with the mitigation measure prescribed in the FEIR (page 432).

Construction of the concrete pad would increase the total amount of impervious surface area on Airport property, but because the total area of the concrete pad is small (50 feet by 120 feet), the project would not significantly increase the amount of surface runoff. In order to ensure that surface water will not stand or collect on the site, the transformer footprint will be graded so as to drain the area into the storm drains located on Bay Street and Santa Paula Avenue. Storm water will then drain into the San Francisco combined storm water and sewer system which serves both the site and the San Francisco International Airport.

The project site is located on a portion of Airport property subject to 100-year flooding (Limerinos, et.al., 1973). According to Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (FEMA), the depth of flooding expected to occur in Millbrae is less than three feet (MTC, et. al., 1992). Drainage in the San Bruno and Millbrae areas is directed through storm drains and minor channels to the Cupid Row Canal and the San Felipe-South Lomita Canal (South Lomita Canal). The South Lomita Canal flows north to south and runs parallel to US 101, directly east of the project site. Water from the South Lomita Canal is pumped into the Millbrae High Line Canal which flows into the Bay. Flooding occurs from the backing up and overtopping of stormwater in these canals during heavy storms (PG&E, 1995). Flood conditions created by heavy rains are aggravated by high tides in the Bay.

The project would not worsen existing flood conditions in Millbrae. Based on the size of the proposed concrete pad, the amount of flood plain storage would not be significantly decreased. The project would not significantly affect surface topography or existing drainage patterns. To prevent potential flood damage, the concrete pad and transformer would be designed to withstand a 100-year flood event. Therefore, the proposed project would have a less than significant impact on local surface water and groundwater resources.

ENERGY/NATURAL RESOURCES

As discussed in the Project Description, the Station MA Project would be designed to meet the long-term electricity requirements at SFIA. The impacts associated with energy production required for construction and operation of SFIA Master Plan projects were analyzed in the FEIR, pp. 366 to 370. Impacts of construction energy usage are discussed generally in the FEIR on p. 366. Construction of the Station MA Project could result in additional construction energy usage. Project-related traffic for checking meters and performing routine maintenance would require two vehicle trips per day, but would not result in a significant increase in energy use. Since the project does not involve the construction of any buildings, energy use during building construction and operation would not be applicable.

HAZARDS

Although the project was not discussed specifically in the FEIR, much of the general background information provided on pp. 201 to 227 of the FEIR is relevant to the Station MA Project. Similarly, the approach and conclusions regarding the hazardous materials impacts of the SFIA Master Plan (presented on pp. 381 to 393 of the FEIR) also apply to the project, as noted below.

SOIL CONDITIONS

Observable conditions at the project site suggest that a road once passed over the area. Soil and asphalt pavement cover the site. A preliminary (Phase I) site assessment has not been performed as yet, but will be performed prior to the start of construction, as was called out in the FEIR. No contamination is visible, but some refuse (such as unwanted aerosol cans, carpet pieces, and a washing machine) has been abandoned there. The site is not listed on the *State of California Hazardous Waste and Substances Sites List* (Cal-EPA, 1994).

Project construction would involve some excavation and grading. As discussed in the FEIR (pp. 381 to 384), construction workers or the public could be exposed to contaminated soil and dust emissions encountered during construction. Mitigation measures identified in the FEIR (pp. 426 and 427) and adopted by SFIA as part of the Final Mitigation Plan include conducting a Phase I site investigation and, if necessary, performing a more thorough site investigation, conducting remediation, implementing a safety and health plan, implementing a dust control program, submitting reports to appropriate agencies, and certifying the completion of remediation. This mitigation would apply to the project; therefore, the project would not result in any new significant environmental impacts related to soil conditions not already adequately addressed in the FEIR.

HAZARDOUS MATERIALS

Electrical transformers contain nonconducting mineral oil used for insulation between conducting surfaces. When a transformer is taken out of service, the oil must be disposed of as hazardous waste. Older transformers frequently contained polychlorinated biphenyls (PCBs), which were a hazardous class of chemicals. PCBs no longer are used in electrical equipment, however, and transformer oil used at the substation would contain no PCBs.

In the unlikely event that the transformer would become damaged and oil leaked from the unit, a containment pond would collect the escaping oil. Any visible oil that is captured would be removed from the pond by a certified waste hauler and taken to an appropriate disposal facility. Transformer oil would not pose any hazard to the environment nor create any potential impacts for site workers, the public or the environment.

Existing safety programs (discussed on p. 390 of the FEIR) also would apply to the Station MA Project. These include monthly inspections, appropriate containment, proper drainage, and direct current back-up in the case of an emergency shut-down. The project site would be fenced.

On the basis of the site design, the self-contained 55-Megavolt-ampere transformer unit to be used at Station MA, and the precautions to ensure oil capture in case of accidental damage of the equipment, the risk of release of hazardous materials from the substation would be very low. On that basis, the potential impact of the project due to mishandling of hazardous materials is considered to be less than significant.

ACCIDENT SHOCK HAZARDS

As with all high-voltage electrical equipment, the proposed substation could pose a hazard of electric shock for site trespassers. This hazard would only occur at the transformer itself and would not extend off site where the general public could be affected.

To minimize potential exposure to electric shock hazards, site access would be restricted by fencing. Ten-foot high cement block walls would be constructed on the north side of the site facing Santa Paula Avenue and Bay Street and on the west side (see Figure 3). Warning signs would be posted to alert persons of the potential electrical hazards. Because of those precautions, the risk of persons to be exposed to a shock hazard is considered low, and this potential impact is considered less than significant.

ELECTROMAGNETIC FIELDS (EMFs)

Electrical currents and voltages at the substation and along its connection lines would generate electric and magnetic fields (EMFs). EMFs are fields of force created by electric voltage (electric fields) and by electric current (magnetic fields). Voltage on any wire produces an

electric field in the area surrounding the wire. Electric field strength is described in terms of voltage per unit distance at a specified position (volts per meter, V/m). A magnetic field is produced from current in a conductor such as a wire. Magnetic field strength is measured in terms of lines of force per unit area (Gauss, G; or milligauss, mG).

EMFs are found wherever electricity is used, such as utility transmission and distribution lines, building wires in homes, offices, and schools, and in appliances and machinery. Typical magnetic fields from these sources range from below 1.0 mG to about 1,000 mG. For comparison, the earth's natural background magnetic field is approximately 450 mG in this region. Electric field strengths vary widely, decreasing geometrically from the voltage source; 5-10 kV/m would be typical values in transmission line rights-of-ways.

EMFs, especially from high voltage transmission lines, have come under scrutiny because of suspected but unconfirmed health effects. Individuals in the vicinity of the proposed substation (such as occupants of the nearest residences about 100 feet away, and persons on Santa Paula Avenue and Bay Street) could potentially be exposed to EMFs generated by the transformer or its associated connecting lines.

However, potential exposure to EMF is not considered to be a significant issue for the project because there is no reliable evidence that exposure to EMF has any adverse health effects. No "safe" or "unsafe" level of EMF exposure has been found in any reputable study, and no safety or health standards for EMF exposure have been set by regulatory authorities or public health experts. The California Department of Health Services has not set a "safe" or "dangerous" level of magnetic field exposure. The Department explained why it will not set such levels (Leonard et al., 1990):

Research experiments have shown that magnetic fields can cause biologic changes in living tissues, but we are not sure whether there is any risk to human health associated with them. . . .

A number of research studies are now under way to determine with greater certainty if magnetic fields do indeed pose any health risk and, if so, what aspect of the field is harmful. At this time, for example, no one knows the relative importance of average long-term exposure, exposure to sudden high intensities, exposure to different frequencies, or various combinations of all these with other factors. Stronger fields may not always pose a greater risk than weaker fields, and we don't have enough information to say that "more is worse."

In another major study, the American Physical Society conducted an exhaustive review of scientific evidence regarding potential health effects of EMF. The Society concluded that there was no link between public health and power line fields and that conjectures relating cancer to powerline fields are not substantiated (American Physical Society, 1995).

The most recent comprehensive evaluation of the possible health effects of EMFs on humans was undertaken by the National Research Council (NRC) and published in 1996. The NRC Board on Radiation Effects Research convened an expert committee to review and evaluate the literature on the possible health effects of exposure to electric and magnetic fields. Their report was the result of nearly three years of study and many hours of committee deliberation. On the basis of their comprehensive evaluation of published reports relating to the effects of EMFs on cells, tissues and organisms (including humans), the committee concluded that the current body of evidence does not show that exposure to these fields presents a human-health hazard. Specifically, no conclusive and consistent evidence demonstrated that exposures to residential electric and magnetic fields produce cancer, adverse neurobehavioral effects, or reproductive and developmental effects (NRC, 1996).

In summary, EMFs have not been shown to cause adverse health effects in persons exposed, and no health-based standards exist for EMF exposure. For these reasons, any potential EMF exposure caused by the project is considered to be a less-than-significant impact.

EMERGENCY RESPONSE PLANS

The project would not interfere with emergency response plans. The project would not interfere with emergency access to nearby residences on Santa Paula Avenue or Bay Street because transformer operations would not affect traffic on these streets. PG&E would utilize the existing access road (which would be newly gated to restrict non-operator access) to allow emergency and maintenance access to the adjacent power lines. Therefore, the project would not significantly affect emergency response plans.

FIRE HAZARDS

Because it would be involved with generation and transmission of electricity, the new substation would pose a potential fire hazard. Accidents involving transformer failure, downed power lines or similar incidents could generate sparks that could ignite a fire. The risk of a project-related fire in the area, however, remains low because such fires happen infrequently and because the site will be entirely paved and kept clear of ignitable vegetation.

In the event that a fire should occur, the first emergency responder would be the Millbrae Fire Department, Station Number 37, located at 511 Magnolia Avenue. Emergency vehicles from that station could reach the project site in less than 5 minutes travel time (Dalmas, 1997). SFIA fire-fighting personnel would be available as back-up. As the new substation would be situated only a few hundred feet from the existing Milbrae Substation, the project would not open new emergency response routes nor pose a significant additional burden on local firefighters. In addition, SFIA would take the following actions in the event of an emergency:

- The power will be shut down in half a cycle (there are 60 cycles per second);

- Any leaking transformer oil would be caught by the containment pond that will be built as part of the transformer station;
- SFIA Engineering would respond initially to any emergency situation. Hetch Hetchy emergency response teams and San Francisco electrical crews would provide support response within two hours after notification of an outage;

OTHER

This environmental checklist was used to evaluate the potential for changes in the proposed project (from what was analyzed in the FEIR) to result in impacts not already identified in the FEIR. Where an item in the checklist is marked "No," it reflects the conclusion that the Station MA Project would result in no *additional* adverse impacts. The conclusion is based on a review of the impact analysis in the FEIR and a consideration of the changes from the proposed project from what was analyzed in the FEIR. For each item that is marked "Discussed," the discussion is presented in Chapter III of the Negative Declaration.

MITIGATION MEASURES

Mitigation Measure 1: Archaeological Resources. Should evidence of archaeological resources of potential significance be found during ground disturbance, the project sponsor would immediately notify the Environmental Review Officer (ERO) and would suspend any excavation which the ERO determined could damage such archaeological resources. Excavation or construction activities which might damage discovered cultural resources would be suspended for a total of four weeks over the course of construction.

After notifying the ERO, the project sponsor would select an archaeologist to assist the ERO in determining the significance of the find. The archaeologist would prepare a draft report containing an assessment of the potential significance of the find and recommendations for what measures should be implemented to minimize potential effects on archaeological resources. Based on this report, the ERO would recommend specific additional mitigation measures to be implemented by the project sponsor.

Mitigation measures might include a site security program, additional on-site investigations by the archaeologist, and/or documentation, preservation, and recovery of cultural materials. Finally, the archaeologist would prepare a draft report documenting the cultural resources that were discovered, an evaluation as to their significance, and a description as to how any archaeological testing, exploration and/or recovery program was conducted.

Copies of all draft reports prepared according to this mitigation measure would be sent first and directly to the ERO for review. Following approval by the ERO, a copy of the final report would be sent to the California Archaeological Site Survey Northwest Information Center.

The Office of Environmental Review shall receive three copies of the final archaeological report

Mitigation Measure 2: Construction Noise: As part of its approval of the SFIA Master Plan, the Airport adopted several mitigation measures related to construction noise impacts, including (1) implementing noise reduction measures for construction equipment (e.g., muffle and shield intakes and shrouds); and (2) requiring the general contractor to consider construction of temporary barriers around the site (if such barriers would reduce noise levels by five dBA or more) and to locate stationary equipment in pit areas or excavated areas to serve as noise barriers. To protect against potential construction-related noise impacts for the Station MA Project, SFIA would require the construction contractor to limit construction activities to daytime hours. Construction would occur between the hours of 7:30 am to 4:00 pm, Monday through Friday. SFIA also would continue its current Community Relations Program for construction, which involves issuing press releases for public notification of construction schedules, a construction telephone hotline, and presentations to the community.

Mitigation Measure 3: Construction Air Quality: The project sponsor would require the contractor(s) to spray the site with water during excavation, and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soils, sand or other such material; and sweep surrounding streets during excavation and construction at least once per day to reduce particulate emissions.

Ordinance 175-911 passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor would require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsors would require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions for equipment that would be frequent for much of the construction period.

Mitigation Measure 4: Biological Resources

- Prior to construction, a snake enclosure fence would be installed around the construction area to prevent moving animals from entering the project site. A biological monitor would be on-site at all times during the installation of the fence and would relocate any reptiles or amphibians found within the fenced area.
- A reduced-intensity monitoring approach would be implemented during the entire substation construction period. Monitoring tasks would include daily inspection of the work area for animals within the confine, and inspection of the fence for integrity.
- Educational sessions would be conducted for all construction personnel and work crews on the sensitivity of the garter snake, red-legged frog, and their habitats, as well as penalties for unauthorized take. The training would include visual materials on identification of the

species, with instructions on procedures to follow when encountering any snake or frog species in the work area.

- The 1996 *Biological Opinion* requires on-site preservation of three acres of upland habitat for every one acre of undisturbed upland permanently impacted. As for temporary impacts, the *Biological Opinion* requires on-site preservation of two acres of upland habitat for every one acre of undisturbed upland impact. For the tap to line #5 alternative, SFIA will permanently protect a total of 0.52 acre of upland habitat on the West of Bayshore property, based on 0.14 acre of permanent impact at a 3:1 ratio and 0.05 acre of temporary impact at 2:1 ratio. If, instead, the tap is made to line #2, SFIA will permanently protect a total of 0.79 acre of upland habitat on the West of Bayshore property, based on 0.15 acre of permanent impacts at a 3:1 ratio and 0.17 acre of temporary impacts at 2:1 ratio.
- Clearing for all fencing would be the minimum practical, and would be done by hand using non-motorized hand tools with the exception that chain saws may be used to cut trees and shrubs greater than 1 inch in diameter. Footings for fences and walls would be dug by hand by a portable two-person augur, or by equipment able to operate from non-vegetated areas. The retaining wall would be built of concrete/concrete block or other inert material. Treated wood would not be used.
- A minimum 20-foot setback from the west end of the pavement would be observed to avoid collapsing the horizontal crevice that has formed under the pavement.

Implementation of these measures would reduce the potential impacts to these species to below the level of significance.

NOTES - Environmental Impacts

American Physical Society (APS), *Power Fields and Public Health*, Statement by the Council of The American Physical Society, April 1995.

Bennett, William R., "Electromagnetic Fields and Power Lines," *Scientific American Science & Medicine*, July/August 1995.

California EMF Consensus Group (Consensus Group), *Issues and Recommendations for Interim Response and Policy Addressing Power Frequency Electric and Magnetic Fields (EMFs)*, March 20, 1992.

California Environmental Protection Agency (Cal-EPA), *State of California Hazardous Waste and Substances Sites List* (the Cortese List), December 1994.

California Natural Diversity Data Base (CNDDB). 1997. Special-status species occurrences report for the San Francisco South, Montara Mountain, San Mateo, and Hunters Point 7.5 minute USGS quadrangles. Nongame Heritage Program, Department of Fish and Game, The Resources Agency, Sacramento, California.

Compas, Lynn, Researcher II, Northwest Information Center: Historical Resources Information Systems, letter correspondence, April 17, 1996.

Dalmas, Dale, Captain, Millbrea Fire Department, telephone conversation, November 25, 1997.

Environmental Science Associates, *San Francisco International Airport West Field and South Field Projects, Negative Declaration*, December 30, 1996.

General Land Office (GLO), 1858 Survey Plat for Buri Buri Land Grant.

Helley, E.H.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair, 1979. *Flatland Deposits of the San Francisco Bay Region - Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning*. Geological Survey Professional Paper 943. United States Geological Survey and Department of Housing and Urban Development.

Hileman, Bette, "Health Effects of Electromagnetic Fields Remain Unresolved," *Chemical and Engineering News*, November 8, 1993.

Leonard, Alvin, Raymond Neutra, Michael Yost, and Geraldine Lee, *Electric and Magnetic Fields: Measurements and Possible Effects on Human Health from Appliances, Power Lines, and Other Common Sources*, California Department of Health Services, 1990.

Levy, Richard, 1978 Costanoan, In *California*, edited by Robert F. Heizer. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Limerinos, J.T., K.W. Lee, and P.E. Lugo, *Flood Prone Areas in the San Francisco Bay Region, California*, Interpretive Report 4, Water Resources Investigation 37-73, U.S. Geological Survey, 1973.

- LSA Associates, *Biological Assessment for the Substation M Project, San Francisco International Airport Master Plan Improvement Project, San Mateo County, California*, September 1997.
- Metropolitan Transportation Commission, San Mateo County Transit District, San Francisco Bay Area Rapid Transit District, and Federal Transit Administration U.S. Department of Transportation, *BART - San Francisco Airport Extension, Alternatives Analysis/DEIS/DEIR, Volume I*, March 1992.
- Morgan, M. Granger, *Electric and Magnetic Fields from 60 Hertz Electric Power: What do we know about possible health effects?*, Department of Engineering and Public Policy, Carnegie Mellon University, 1989.
- National Research Council, *Possible Health Effects of Exposure to Residential Electric and Magnetic Fields*, National Academy Press, Washington, D.C., 1996.
- Pacific Gas & Electric Company (PG&E), *Transmission Line EMF Design Guidelines*, January 11, 1994.
- PG&E, *115 kV Electric Power Line Tap Into Millbrae Substation Serving the San Francisco International Airport Expansion Project, Proponent's Environmental Assessment, Draft*, August 1995.
- San Mateo County Planning Department, *Geotechnical Hazards Synthesis Map of San Mateo County*, 1976.
- Slesin, Louis, Matthew Connelly, and David Bergman, *Electromagnetic Fields and Land Use Controls*, American Planning Association, 1991.
- Soil Conservation Survey, *Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California*, May 1991.
- U.S. Fish and Wildlife Service, *Biological Opinion for the San Francisco International Airport Master Plan Improvement Project*, December 13, 1996.

ENVIRONMENTAL EVALUATION CHECKLIST
(Initial Study Checklist)

File No: 97.051E Title: SFIA Station MA

Street Address: SFIA, SE corner, Bay St. and Santa Paula Ave., Millbrae, CA Assessor's Block/Lot: 1213/004

Initial Study Prepared by: Brian J. Kalahar, AICP

A. <u>COMPATIBILITY WITH EXISTING ZONING AND PLANS</u>	<u>Not</u> <u>Applicable</u>	<u>Discussed</u>
1) Discuss any variances, special authorizations, or changes proposed to the City Planning Code or Zoning Map, if applicable.	<u>X</u>	<u>X</u>
*2) Discuss any conflicts with any adopted environmental plans and goals of the City or Region, if applicable.	<u>X</u>	<u>X</u>
B. <u>ENVIRONMENTAL EFFECTS - Could the project:</u>		
1) <u>Land Use</u>	<u>YES</u>	<u>NO</u>
*(a) Disrupt or divide the physical arrangement of an established community?	<u>—</u>	<u>X</u>
*(b) Have any substantial impact upon the existing character of the vicinity?	<u>—</u>	<u>X</u>
2) <u>Visual Quality</u>	<u>YES</u>	<u>NO</u>
*(a) Have a substantial, demonstrable negative aesthetic effect?	<u>—</u>	<u>X</u>
(b) Substantially degrade or obstruct any scenic view or vista now observed from public areas?	<u>—</u>	<u>X</u>
(c) Generate obtrusive light or glare substantially impacting other properties?	<u>—</u>	<u>X</u>
3) <u>Population</u>	<u>YES</u>	<u>NO</u>
*(a) Induce substantial growth or concentration of population?	<u>—</u>	<u>X</u>
*(b) Displace a large number of people (involving either housing or employment)?	<u>—</u>	<u>X</u>
(c) Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply?	<u>—</u>	<u>X</u>
4) <u>Transportation/Circulation</u>	<u>YES</u>	<u>NO</u>
*(a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	<u>—</u>	<u>X</u>
(b) Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards?	<u>—</u>	<u>X</u>

* Derived from State EIR Guidelines, Appendix G, normally significant effect.

	<u>YES</u>	<u>NO</u>	<u>DISCUSSED</u>
(c) Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?	—	<u>X</u>	—
(d) Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?	—	<u>X</u>	<u>X</u>
5) <u>Noise</u>			
* (a) Increase substantially the ambient noise levels for adjoining areas?	—	<u>X</u>	<u>X</u>
(b) Violate Title 24 Noise Insulation Standards, if applicable?	—	<u>X</u>	—
(c) Be substantially impacted by existing noise levels?	—	<u>X</u>	<u>X</u>
6) <u>Air Quality/Climate</u>			
* (a) Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?	—	<u>X</u>	<u>X</u>
* (b) Expose sensitive receptors to substantial pollutant concentrations?	—	<u>X</u>	<u>X</u>
(c) Permeate its vicinity with objectionable odors?	—	<u>X</u>	—
(d) Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region?	—	<u>X</u>	—
7) <u>Utilities/Public Services</u>			
* (a) Breach published national, state or local standards relating to solid waste or litter control?	—	<u>X</u>	<u>X</u>
* (b) Extend a sewer trunk line with capacity to serve new development?	—	<u>X</u>	<u>X</u>
(c) Substantially increase demand for schools, recreation or other public facilities?	—	<u>X</u>	<u>X</u>
(d) Require major expansion of power, water, or communications facilities?	—	<u>X</u>	<u>X</u>
8) <u>Biology</u>			
* (a) Substantially affect a rare or endangered species of animal or plant or the habitat of the species?	—	<u>X</u>	<u>X</u>
* (b) Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species?	—	<u>X</u>	<u>X</u>
(c) Require removal of substantial numbers of mature, scenic trees?	—	<u>X</u>	<u>X</u>
9) <u>Geology/Topography</u>			
* (a) Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction).	—	<u>X</u>	<u>X</u>
(b) Change substantially the topography or any unique geologic or physical features of the site?	—	<u>X</u>	<u>X</u>

	<u>YES</u>	<u>NO</u>	<u>DISCUSSED</u>
10) <u>Water</u>			
*(a) Substantially degrade water quality, or contaminate a public water supply?	—	<u>X</u>	<u>X</u>
*(b) Substantially degrade or deplete ground water resources, or interfere substantially with ground water recharge?	—	<u>X</u>	<u>X</u>
*(c) Cause substantial flooding, erosion or siltation?	—	<u>X</u>	<u>X</u>
11) <u>Energy/Natural Resources</u>			
*(a) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	—	<u>X</u>	<u>X</u>
(b) Have a substantial effect on the potential use, extraction, or depletion of a natural resource?	—	<u>X</u>	<u>X</u>
12) <u>Hazards</u>			
*(a) Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?	—	<u>X</u>	<u>X</u>
*(b) Interfere with emergency response plans or emergency evacuation plans?	—	<u>X</u>	<u>X</u>
(c) Create a potentially substantial fire hazard?	—	<u>X</u>	<u>X</u>
13) <u>Cultural</u>			
*(a) Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study?	—	<u>X</u>	<u>X</u>
(b) Conflict with established recreational, educational, religious or scientific uses of the area?	—	<u>X</u>	—
(c) Conflict with the preservation of buildings subject to the provisions of Article 10 or Article 11 of the City Planning Code?	—	<u>X</u>	—

C. <u>OTHER</u>	<u>YES</u>	<u>NO</u>	<u>DISCUSSED</u>
Require approval and/or permits from City Departments other than Department of City Planning or Bureau of Building Inspection, or from Regional, State or Federal Agencies?	<u>X</u>	—	<u>X</u>

D. MITIGATION MEASURES**YES NO N/A DISCUSSED**

- | | | | | | |
|----|--|----------|----------|----------|----------|
| 1) | Could the project have significant effects if mitigation measures are not included in the project? | <u>X</u> | <u>—</u> | <u>—</u> | <u>X</u> |
| 2) | Are all mitigation measures necessary to eliminate significant effects included in the project? | <u>X</u> | <u>—</u> | <u>—</u> | <u>X</u> |

E. MANDATORY FINDINGS OF SIGNIFICANCE**YES NO DISCUSSED**

- | | | | | |
|-----|---|----------|----------|----------|
| *1) | Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history? | <u>—</u> | <u>X</u> | <u>X</u> |
| *2) | Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? | <u>—</u> | <u>X</u> | <u>X</u> |
| *3) | Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.) | <u>—</u> | <u>X</u> | <u>X</u> |
| *4) | Would the project cause substantial adverse effects on human beings, either directly or indirectly? | <u>—</u> | <u>X</u> | <u>X</u> |

F. ON THE BASIS OF THIS INITIAL STUDY

— I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.

X I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures, numbers 1 - 2, in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

— I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

HILLARY E. GITELMAN
Environmental Review Officer

for

Gerald G. Green
Director of Planning

DATE: March 28, 1998

